

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
DUTY STATEMENT**

CLASSIFICATION TITLE Transportation Engineering Technician	DISTRICT/DIVISION/OFFICE North Region Construction	
WORKING TITLE Construction Materials Tester/Inspector	POSITION NUMBER 927-502-3175-	EFFECTIVE DATE 03/01/06

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.

GENERAL STATEMENT:

Under the direction of an Area Construction Engineer, a Senior Transportation Engineer or a Transportation Engineer acting in a lead capacity, the incumbent will make construction inspections and field investigations of materials used in construction projects. *Must have a current driver's license.*

Percentage
Essential (E)/Marginal (M)¹

Job Description

Specific duties include, but are not limited to:

- 40% (E) The incumbent will make field investigations and laboratory analysis of materials being used in construction projects; will make controlled tests and checks performance of construction materials, soils, aggregates, cement, asphalt, concrete, and other construction materials. The incumbent analyzes and approves, or assists in analyzing and approving materials, incorporated in nonstandard major structures; evaluates or assists in evaluating damage, for all types of transportation facilities. The incumbent performs tests on construction materials to determine their compliance with the Standard Specifications applicable to the year the job is bid.
- 25% (E) The incumbent performs compliance inspections of Asphalt Concrete (AC) Plants and Portland Cement Concrete (PCC) plants during construction projects insuring compliance with plans and specifications of construction projects. Adjusts, maintains, and calibrates materials testing equipment used to determine compliance with Specifications during construction projects.
- 25% (E) The incumbent makes inspections of construction projects. Ensures compliance with plans and specifications, collects engineering data. Assists in drafting and prepares specifications, change orders, contract estimates, and other documents and reports involved in the construction of projects. Advises Resident Engineer of problems or situations on project sites.

- 10% (E) Performs miscellaneous inspection duties and nonprofessional engineering work as assigned, on various construction projects.

SUPERVISION RECEIVED OR EXERCISED OVER OTHERS

Receives supervision from a Senior Transportation Engineer or direction from a Transportation Engineer, Civil, acting in a lead worker capacity.

Incumbent does not supervise.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

Incumbent must be familiar with construction materials specifications, PCC and AC plants and must be proficient in California test methods. Methods of proportioning and handling Portland Cement Concrete and Asphalt Concrete, handling of asphaltic oils and emulsions, testing of materials, computer application to transportation engineering; factors which influence the impact of highways and other transportation facilities on the environment; principles and practices involved in utility relocation.

Read and write English, at a level required for successful job performance; communicate effectively orally and in writing. Make accurate engineering calculations; understand very basic design engineering principles; ability to research and compile data and prepare calculations for a variety of routine transportation improvement projects.

CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS

Incumbent is responsible for determining the acceptability of materials in relation to the Specifications; errors may lead to inaccurate tests, with subsequent structural failure of roadbeds or contractor's claims due to errors in testing, which leads to rejection of satisfactory materials and work. Incumbent will be responsible to make accurate engineering calculations of a routine nature; apply sound engineering principles to various routine engineering activities; take effective action to avoid delays. Misinformation or incomplete information could result in incorrect or late payments to the Contractor.

PUBLIC AND INTERNAL CONTACTS

Must be able to establish and maintain friendly and cooperative relations with those contacted in the course of the work. Such as: fellow Caltrans workers, contractors' employees, engineering consultants, to transmit or obtain relevant engineering information. These contacts could be verbal or written, as needed, to perform assignments.

PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS

Employee may be required to stand for large periods of time, walk on slopes or uneven terrain, move and transport bags of material samples to Materials Labs. May occasionally be required to move equipment and testing materials weighing up to 50 lbs. Night work, frequent travel and long-term assignments throughout the North Region may be required. Will take and test material samples and do other non- professional engineering work as assigned.

When at their base office setting, employee may be required to sit for long periods of time using a keyboard and video display terminal and would be required to work in a climate-controlled office with artificial lighting, etc. In the course of the employee's work, must maintain a cooperative working relationship within the working environment, with peers, subordinates, contractors and their employees.

WORK ENVIRONMENT

Will be subject to noise, odors, dust, extreme weather conditions, climate-controlled environment, and artificial lighting, etc. Must work with and about a variety of materials, construction and testing equipment.

I have read and understand the duties listed above. If you believe you may require reasonable accommodation, please discuss this with the hiring supervisor.

Employee (please print)

Employee Signature Date

I have discussed with and provided a copy of this duty statement to the employee named above.

Supervisor (please print)

Supervisor Signature Date

- ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.
- MARGINAL FUNCTIONS are minor tasks of the position that can be assigned to others.